



PATENT  
Attorney Docket No.: 021833-000200US  
Client Reference No.: Z8778-US FS/OC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Rolf Freimann, et al.

Application No.: 10/637,217

Filed: August 8, 2003

For: METHOD FOR CALIBRATING  
AN INTERFEROMETER APPARATUS,  
FOR QUALIFYING AN OPTICAL  
SURFACE, AND FOR  
MANUFACTURING A SUBSTRATE  
HAVING AN OPTICAL SURFACE

Examiner: Unassigned

Art Unit: 2877

INFORMATION DISCLOSURE  
STATEMENT UNDER 37 CFR §1.97 and  
§1.98

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the foreign patent publications and non-patent references are enclosed. Cited reference no. 10, WO03/002933, is a PCT publication in the German language, a translation of this publication was included as an appendix in the present application.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if a fee is required, the Commissioner is authorized to deduct such fee from the

undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

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Complete if Known

Application Number	10/637,217
Filing Date	August 8, 2003
First Named Inventor	Rolf Freimann
Art Unit	2877
Examiner Name	Unassigned
Attorney Docket Number	021833-000200US

**U.S. PATENT DOCUMENTS+**

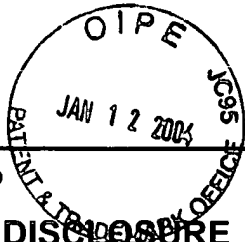
Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US-2002-0191193	12-19-2002	Smirnov et al.	
	2	US-2002/0063867	05-30-2002	Otto	
	3	US-5,982,490	11-09-1999	Ichikawa	
	4	US-5,777,741	07-07-1998	Deck	
	5	US-5,488,477	01-30-1996	de Groot	
	6	US-5,473,434	12-05-1995	de Groot	
	7	US-5,361,312	11-01-1994	Kuchel	
	8	US-4,732,483	03-22-1988	Biegen	
	9	US-4,340,306	07-20-1982	Balasubramanian	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	10	PCT	WO03/002933	A1	01-09-2003	Carl Zeiss		<input checked="" type="checkbox"/>
	11	JP	2001-255115	A	09-21-2001	Nikon Corp		<input checked="" type="checkbox"/>

Examiner  
SignatureDate  
Considered

\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Kind Codes of U.S. Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.



Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

**Complete if Known**

Application Number	10/637,217
Filing Date	August 8, 2003
First Named Inventor	Rolf Freimann
Art Unit	2877
Examiner Name	Unassigned
Attorney Docket Number	021833-000200US

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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	12	Al et al. "Measurement of the inhomogeneity of a window," Optical Engineering 30:1399-1404 (1991).	
	13	FREIMANN et al. "Absolute measurement on non-comatic aspheric surface errors," Optics Communication 161:106-114 (1999).	
	14	FRITZ "Absolute calibration of an optical flat," Optical Engineering 23:379-383 (1984).	
	15	HARIHARA "Interferometric testing of optical surfaces: absolute measure of flatness," Optical Engineering 36:2478-2481 (1997).	
	16	NING et al. "Fringe beating effects induced by misalignment in a white-light interferometer," Measurement Science & Technology. 7:700-705 UK (1996).	
	17	SCHWIDER et al. "Homogeneity testing by phase sampling interferometry," Applied Optics 24:3059-3061 (1985).	

Examiner Signature		Date Considered	
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\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.